Oxford Analytica Foundation

Towards a New Paradigm of Company Valuation

A Literature Review of Emerging Frameworks for Long-term Social and Environmental Sustainability

June 2019

CONVENTION OF INDEPENDENT FINANCIAL ADVISORS
A Non-Profit Foundation
A Non-Governmental Organization in general consultative status with the Economic and Social Council of the United Nations

CAUX ROUND TABLE FOR MORAL CAPITALISM

Contents

Introduction to the Project **4**

Part One:
Review of Academic Literature on the Changing Scope of Company Valuation Methodologies **7**

I. Books and Articles about Traditional Categories of Valuation **8**
A. Academic Literature about Traditional Valuation 8
B. Practitioner-focused Publications from a Traditional Valuation Perspective 10

II. Books and Articles about Emerging Metrics for Valuation **12**
A. Social Capital 12
B. Human and Intellectual Capital 13
C. Natural Capital 14
D. Reputational Capital 16

Part Two:
Review of Thought Leadership on Sustainable Value Creation and Measurement **17**
1. B Lab 17
2. Carbon Disclosure Project (CDP) 17
3. Caux Round Table for Moral Capitalism 18
4. Coalition for Inclusive Capitalism 18
5. Embankment Project for Inclusive Capitalism 18
6. EU Directive on Non-financial Disclosure 19
7. Focusing Capital on the Long Term 20
8. Forum for Sustainable and Responsible Investment 21
9. Future of the Corporation Project 21
10. Global Impact Investment Network 22
11. Global Reporting Initiative 22
12. Impact Institute 23
13. International Integrated Reporting Council 24
14. Natural Capital Coalition 24
15. Natural Capital Finance Alliance 26
16. Organization for Economic Cooperation and Development 26
17. Principles for Responsible Banking 27
18. Principles for Responsible Investment 28
19. Professional and Financial Firms and Associations 28
20. Re-Evaluation of the Capitalist System 29

21. SIGMA Project – The Five Capitals 31
22. Smith School of Enterprise and the Environment 31
23. Social and Human Capital Coalition 32
24. Sustainability Accounting Standards Board 33
25. Sustainable Stock Exchanges 33
26. Task Force on Climate-related Financial Disclosures 34
27. UK Financial Reporting Council 35
28. United Nations Global Compact 36
29. United Nations Sustainable Development Agenda 36
30. World Bank Group Human Capital Project 37
31. World Business Council for Sustainable Development 38

Concluding Observations from the Caux Round Table **40**

Introduction to the Project

Towards a New Paradigm of Company Valuation: A Literature Review of Emerging Frameworks for Long-term Social and Environmental Sustainability reflects the growing recognition that valuation methodologies must be recalibrated to include non-financial factors. Against the backdrop of relevant developments in the fields of business and finance, this Company Valuation Review also builds on a corporate sustainability project undertaken by the Oxford Analytica Foundation (OA Foundation) on behalf of the Caux Round Table for Moral Capitalism (CRT).

The Caux Round Table has advanced an ethical vision for the global economy for more than three decades. Its Principles for Responsible Business, rooted in the foundations for a fair and functioning society, support stewardship, mutual advantage, and human dignity. Drawing on a series of international round tables, the CRT retained the OA Foundation to design a project that would reinforce the linkages between sustainable development values and responsible business conduct. This was especially timely given the promulgation of the UN Sustainable Development Goals (SDGs) and the call for private sector engagement. The *Corporate Stewardship Compass*, launched in 2017, confirmed that building a culture of stewardship requires the alignment of values with business practices. With analysis grounded in the Dow Jones Sustainability Index (DJSI), the *Corporate Stewardship Compass* offers leadership guidance based on the performance of some of the world's most sustainable companies.

Within the *Corporate Stewardship Compass*, questions of measurement featured in several ways – including the complex relationship between the advancement of social and environmental values and the calculation of company value. The consultation process indicated that the development of an inclusive and practical model to address such questions could mark a turning point for systemic change. Indeed, several experts deemed this to be the "Holy Grail" of our age of sustainability. Such observations resonated with the CRT's longstanding quest for fresh understandings of capital and intangible assets, along with their potential contribution to both business and societal success. Thus, the CRT and the OA Foundation turned their attention to preparing a concise survey within the evolving field of company valuation.

The resulting literature review charts both traditional valuation methodologies as well as emerging frameworks. It also highlights the significant thought leadership within various multi-sector initiatives. The relevance of the project is underscored by the growing momentum for new approaches to company valuation. Driving factors include:

- The increasing demand for businesses to measure and disclose their environmental, social and governance (ESG) performance, including through corporate reporting, and to manage relevant material risks.
- The power of the Sustainable Development Goals (SDGs) to mobilize business and financial institutions to help meet global challenges, thereby also enhancing systems for data-collection and impact measurement.
- The urgency of responding to climate change, now recast as a climate emergency, and the vital role of the private sector in the "just transition" to a prosperous, low-carbon, resilient and inclusive global economy.

- The shift away from conventional Corporate Social Responsibility programs toward more integrated strategies across business functions, calling for new metrics in management and evaluation.

- The overall importance of demonstrating the positive contributions of business to society, along with its capacity to mitigate negative impacts, thereby bolstering its legitimacy and license to operate.

- The challenges raised against the prevailing economic precept of maximizing shareholder profits, in favor of a broader understanding of the social purpose of the corporation and the value it creates for stakeholders.

- The lessons emerging from the fourth sector -- which includes novel institutional models such as social enterprises and for-benefit organizations operating at the intersection of the three traditional sectors of business, government, and civil society.

- The efforts of jurisdictions around the world to address questions of trust, transparency, integrity, diversity, accountability and long-term sustainability, leading to new standards in corporate law and governance.

- The examples set, and commitments made, by values-driven leaders at the highest levels of business and finance.

- The growing interest in frameworks for company valuation on the part of policy-makers, business and financial leaders, legal and accounting professionals, civil society advocates, academics, and other stakeholders – creating opportunities for interdisciplinary collaborations and solutions.

Towards a New Paradigm of Company Valuation: A Literature Review of Emerging Frameworks for Long-term Social and Environmental Sustainability is comprised of two main sections, followed by concluding observations.

Part One: ***Review of Academic Literature on the Changing Scope of Company Valuation Methodologies***

This section offers a brief annotated bibliography, divided into two categories. The first presents leading books and articles about traditional valuation methodologies from both an academic and practitioner's perspective, addressing private and public companies. The second presents leading books and articles on emerging metrics for valuation, focusing on social capital, human capital, natural capital, and reputational capital.

Part Two: ***Review of Thought Leadership on Sustainable Value Creation and Measurement***

This section features descriptions and web-links for high-level collaborations such as the Embankment Project for Inclusive Capitalism, the Sustainable Stock Exchanges initiative, the Social and Human Capital Coalition, and the British Academy's Future of the Corporation Program. Such a collection of resources, drawing on expertise from various sectors, serves as a useful complement to the academic-style literature review. Moreover, it offers insights on potential reforms in business practices and public policies.

Concluding Observations from the Caux Round Table for Moral Capitalism

Stephen Young, Global Executive Director of the CRT, offers some reflections at the end of this document. He has previously considered some of these issues, notably as they relate to understandings of capital, in an article entitled: "Tipping Global Capitalism towards Sustainability" (*Pegasus Newsletter*, September 2017, available at: http://www.cauxroundtable.org/index.cfm?&menuid=139).

The Caux Round Table is currently organizing a series of round tables around the world in collaboration with partners such as the Oxford Analytica Foundation and the Convention of Independent Financial Advisors (CIFA). We plan to monitor relevant developments in business, finance and public policy, and identify opportunities for further consultation and engagement. Overall, this project hopes to contribute to the evolution of a new paradigm of company valuation for long-term social and environmental sustainability.

Inquiries about this Company Valuation Literature Review document and the work of the Oxford Analytica Foundation may be directed to Ms. Catherine Young at: cyoung@oxford-analytica.com; www.oxan.com/foundation/.

The *Corporate Stewardship Compass*, released in December 2017, is available at: https://www.oxan.com/media/2173/caux-round-table-corporate-stewardship-compass-final-report.pdf.

Inquiries about the wider company valuation project and the work of the Caux Round Table may be directed to Mr. Stephen Young at: steve@cauxroundtable.net; www.cauxroundtable.net.

Part One: Review of Academic Literature on the Changing Scope of Company Valuation Methodologies

This annotated bibliography on company valuation provides a concise series of entries that reflects both academic research and practical guidance. Drawn from books and articles published over a period of years, it serves to signpost the current state of the discipline as well as emerging frameworks. It shows how the scope of valuation methodologies are broadening to include social and environmental issues and other intangible assets.

Concepts such as discounted cash flows, price-to-earnings ratios, asset valuations, and public company comparables help business leaders navigate the valuation landscape. Social capital, human capital, natural capital, and reputational capital can influence company appraisals. However, for the most part, unless a business is beset by an environmental disaster or similar reputational catastrophe, these four types of capital are rarely used to conduct valuations.

Traditional valuation methodologies are starting to address such anomalies. As of yet, there is no clear new paradigm. There seems to be a sense that social, human, natural, and reputational capitals should play a greater role in the valuation process. Business scholars such as Michael Porter have started building a potential foundation. His concept of shared value points to the need to address wider issues, such as evaluating the effect of environmental degradation. But in the absence of fully developed theories and mathematical models that encompass a progressive approach, company valuations continue to be conducted largely along customary lines.

As noted in the Introduction, this annotated bibliography is divided into two sections. Indeed, such a structure confirms the gulf between mainstream valuation practices and the more progressive ideas that seek to re-shape their formulations. The first section describes publications on traditional valuation methodologies from academic and practitioner-focused perspectives, addressing both private and public companies. The second section describes publications on emerging metrics for valuation, focusing on social capital, human and intellectual capital, natural capital, and reputational capital. Under each subsection, entries for books are presented first, followed by relevant articles or reports.

Many of the concepts mentioned within the annotated bibliography also feature in Part Two of this document, as they shape current thought leadership on sustainable value creation and measurement.

I. Books and Articles about Traditional Categories of Valuation

A. Academic Literature about Traditional Valuation

1. Private Companies

Damodaran, A. (2018), *The Dark Side of Valuation: Valuing Young, Distressed and Complex Businesses,* 3rd edition. Upper Saddle River, NJ: Pearson FT Press.

This book is referred to as the definitive guide to valuing hard-to-value companies. Valuing firms that are established and profitable is easy, observes Professor Damodaran. It is the difficult-to-value companies that cause problems for those who do appraisal work. Concepts and measurement tools often fail to meet expectations when trying to determine the value of start-ups, financial institutions, distressed companies, entities facing strong regulation, commodity firms, emerging market enterprises, and other types of businesses. The book helps the reader understand the peculiarities of valuing such firms. Damodaran examines companies across their life cycles. He also assesses distinctive situations, such as when: negative risk-free rates are involved; risk premiums are changing; young companies are disrupting legacy businesses; commodity or cyclical businesses experience price fluctuations; a company must be valued as the sum of its parts or as an aggregation of its users, subscribers and customers.

Petersen, C., Plenborg, T. and Schøler, F. (2006), "Issues in Valuation of Privately Held Firms," *The Journal of Private Equity*, Vol. 10 (1), pp. 33-48.

This article offers a highly readable and understandable exposition on valuation. The introduction provides an overview of the field, covering topics such as: discounted cash flow analysis, economic value added (EVA), valuation for retirement plan investments in equity, and the ways that valuation are used by larger strategic acquirers as well as private equity firms. The authors also analyze reasons for sale of private companies – especially the generational turnover of firms as founders retire. Equations for WACC – Weighted Average Cost of Capital – are explained. The article presents some analysis regarding the frequency with which companies are being offered for sale, as well as of company valuation in the context of litigation. The focal point is a study of one country's valuation practice – that of Denmark. The authors note that 44 institutions participated in their survey, including a state-backed investment company and various corporate investment advisors, banks, and private equity firms. In total, more than 60 sets of responses were collected. Key findings were that Capital Asset Pricing Models were used by all, as were liquidity discounts and present value models. There was less consistency in the use of long forecasting horizons, *i.e.*, of more than five years.

2. Public Companies

Barker, R. (2001), *Determining Value: Valuation Models and Financial Statements*. Upper Saddle River, NJ: Financial Times/Prentice Hall.

This book describes the various methods used to value public companies. Examples of valuation processes covered in detail include price-to-earnings ratio, dividend yield, and economic value added (EVA). An emphasis is placed on the importance of both the availability and the quality of data. Professor Barker is very clear about balancing the theoretical validity of a model with the realistic ability of a valuator being able to receive or discover required information. The book also identifies the relationship between various valuation models and clarifies assumptions made by each model. Case studies are offered, ensuring that valuation may be taught in a way that is accessible and meaningful. Professor Barker draws on his experience in teaching accounting and valuation at both the Judge Business School at the University of Cambridge, and more recently at the Saïd Business School at the University of Oxford.

Brealey, R.A. andMyers, S.C. (2010), *Principles of Corporate Finance,* 11th edition. New York, NY: McGraw Hill.

This is the most well-known book about corporate finance. Finance is the academic field under which, technically, the subject of valuation would fall. Since 1980, students and academicians have been turning to Brealey and Myers for guidance on myriad questions. With respect to corporate appraisal, the authors rely upon capitalization rates, dividend growth, price to earnings ratios, dividend yield, discounted cash flow, and earnings per share. The authors are known to be especially interested in what earnings mean. They help readers understand the difference between income and cash flow. Similarly, they offer warnings about what they call constant-growth formulas. These are rules-of-thumb that help users gain an understanding of value. But, as with many different fields that look to such momentum, a caution is raised that growth can almost never be sustained indefinitely.

Koller, T., Goedhart, M. and Wessels, D. (2015), *Valuation: Measuring and Managing the Value of Companies*, 6th edition. Hoboken, NJ: John Wiley & Sons.

Developed by experts at McKinsey & Company, *Valuation* is an acclaimed handbook aimed at managers, investors, and students. In print for nearly 30 years, a new seventh edition is forthcoming. The book provides insights on how to create, manage, and measure the value of an organization, including practical advice on:

- analyzing historical performance, including re-organizing a company's financial statements to reflect economic rather than accounting performance
- forecasting performance, including the mechanics of forecasting and the broader economic aspects of a company's prospects
- estimating the cost of capital
- interpreting the results of a valuation in light of a company's competitive situation
- linking a company's valuation multiples to the core drivers of its performance

The book presents case studies that illustrate valuation techniques and principles as they apply in real-world situations, and reflects new developments in corporate finance and changes in accounting rules. With a global perspective, it provides insights on the strategic advantages of value-based management as well as guidance for managers on the application of valuation techniques to different industries, emerging markets, and other special circumstances.

Penman, S.H. (2013), *Financial Statement Analysis and Security Valuation*, 5th edition. New York, NY: McGraw-Hill Irwin.

This book presents practical analysis and valuation tools for active investing. Students are instructed to view a firm through its financial statements to value the firm's debt and equity, and to challenge the current market price of a share by analyzing the fundamentals. Penman links the literature on financial statement analysis research to the practical dimensions of accounting, financial, and prospective analysis. The book is structured in five parts: 1) Financial Statements and Valuation; 2) The Analysis of Financial Statements; 3) Forecasting and Valuation Analysis; 4) Accounting Analysis and Valuation; 5) The Analysis of Risk and Return. A sixth edition is due to be published in March 2020.

B. Practitioner-focused Publications from a Traditional Valuation Perspective

1. Private Companies

Gladstone, D. and Gladstone, L. (2003), *Venture Capital Investing: The Complete Handbook for Investing in Small Private Businesses for Outstanding Profits*. Upper Saddle River, NJ: Financial Times/Prentice Hall.

David Gladstone has long-standing involvement with the U.S. venture capital industry. His bestselling book from the 1980s, *The Venture Capital Handbook*, is regarded as a classic in the field. He later collaborated with his daughter, Laura Gladstone, to prepare revised and updated versions. The topics covered include: analysis of financial projections, cash flow and balance sheets; fixed assets; liquidity ratios; risk reduction; using probability, present value, internal rate of return, net present value, and collateral; as well as the value of representations and warranties. Gladstone has served as the CEO and/or Chairman of Allied Capital, American Capital and Gladstone Capital – all publicly traded business-development finance companies. He has funded hundreds of companies and assessed thousands of others from the perspective of long-term value. Over the years, this publication has proven to be both accessible and useful.

Pratt, S. (2008), *Valuing a Business: The Analysis and Appraisal of Closely Held Companies,* 5th edition. New York, NY: McGraw-Hill.

This publication is known as the handbook for private company valuation, and Shannon Pratt is regarded as the leader in this field. This book encapsulates the main methods of valuing businesses that are not traded on public markets. It emphasizes discounted cash flow analysis, comparisons to public companies, and asset-based evaluations. In most cases, the discounted cash flow and public comparison methods will be most useful.

Although in distressed sales, where there are no profits and few public company comparisons, the asset-based analysis may be a better guide. The book explains how company shares receive premiums or discounts in certain situations. Furthermore, it helps readers understand issues involving tax, data collection, credentials of valuation specialists, and how to conduct interviews of executives of companies that are being valued. Pratt's book is seen as a one-stop-shop for experienced practitioners as well as those who are new to private-company valuation.

Matthews, C. (1 July 2003), "More to It Than Numbers," ***Inc.*** **Magazine. Retrieved from: https://www.inc.com/articles/2003/07/pricetosell.html**

This brief article cites some of the top experts in the US valuation community. Matthews approaches appraisal from a small-company perspective, and thus her analysis is more relevant to someone selling a restaurant than a manufacturing company. There are various ways to determine a value, and the process is industry-specific in many situations. The piece relies on common sense approaches to understanding valuation – how long it takes for a professional to prepare a valuation, how much it should cost, how to choose a good valuator, and how to understand the basic thumbnail estimates that are often used in the valuation process.

2. Public Companies

Graham, B. (1949), ***The Intelligent Investor*****. New York, NY: Harper & Brothers.**

Aficionados consider this to be one of the most important books ever written on the topic of investing and company valuation. The publication offers many quotes from Benjamin Graham, meant to motivate as well as educate investors about the strategies that can be used to make money and reduce risk. Graham examines concepts related to value-investing in publicly traded companies. He explains assets and profits, as well as technical trading. According to his philosophy of investing, it is best to buy stocks at a discount to their intrinsic value. A key point is to focus on the particular attributes of the company being valued rather than on conditions in the market. This book has developed a cult-like following. Although it was updated in the 1970's, many readers feel that its advice is timeless. Warren Buffett is a devotee, which helps to explain part of Graham's continued popularity.

Fernandez, P. (2002, revised 2007), "Company Valuation Methods: The Most Common Errors in Valuations," University of Navarro, IESE Business School Working Paper No. 449.

This working paper provides an overview of corporate valuation that is especially relevant to larger public companies. Some of the discussion, such as on stock market bubbles, also offers insights for understanding large private entities. The section on valuing internet companies is now out-dated. However, much of the paper is dedicated to a series of useful charts and paragraphs that compare the different valuation methods, including trends in value over time.

In one case, a comparison is made between various conclusions of value that might be reached for one firm. This shows, for example, the disparity between valuations based on assets and those that are based on cash flows. While some formulas are presented, this accessible paper is suitable for readers without a high degree of familiarity with valuation.

II. Books and Articles about Emerging Metrics for Valuation

A. Social Capital

Grootaert, C. and van Bastelaer, T. (2001), "Understanding and Measuring Social Capital: A Synthesis of Findings and Recommendations from the Social Capital Initiative," World Bank Social Capital Initiative Working Paper No. 24. Retrieved from: http://siteresources.worldbank.org/INTSOCIALCAPITAL/Resources/Social-Capital-Initiative-Working-Paper-Series/SCI-WPS-24.pdf

While somewhat dated, this working paper summarizes a significant World Bank research project on social capital that is comprised of 23 other papers. It places the concept of social capital in a broad context and provides extensive bibliographies. How can the concept of social capital help describe what happens when individuals participate in relationships and communities? The paper addresses networks, economic development, poverty, ethnicity, as well as a variety of industries, regions, and institutions. Among the industries mentioned are waste management, mining, agriculture, trading and water supply. Regions include those that are urban, suburban and rural. Institutions are identified as political, informal, civic associations, NGOs, and regimes. Some of the measurement variables include: capital formation, trust, social cohesion, education, income, health, and levels of violence. These variables are placed within a set of models that focus on race, gender and policy. Attention is also given to governance and rule of law. While providing a valuable analysis of the subject, the working paper does not address the implications or measurement of social capital as it relates to business valuation.

Lins, K.V., Servaes, H. and Tamayo, A. (2017), "Social Capital, Trust, and Firm Performance: The Value of Corporate Social Responsibility during the Financial Crisis," ***The Journal of Finance,*** **Vol. 72 (4), pp. 1785-1824.**

During the 2008-2009 financial crisis, companies with high social capital, measured as corporate social responsibility (CSR) intensity, had stock market returns that were four to seven percentage points higher than firms with low social capital. High-CSR firms also experienced greater profitability, growth, and sales per employee relative to low-CSR firms. They were also able to raise more debt, which indicates that financial markets and investors had greater confidence in them. This evidence suggests that the trust between the company and both its stakeholders and investors, built through a focus on social capital, may pay off when the broader level of trust in corporations and markets suffers a negative shock – such as a financial crisis.

B. Human and Intellectual Capital

Haskel, J. and Westlake, S. (2017), *Capitalism without Capital*. Princeton, NJ: Princeton University Press.

A comprehensive account of the growing dominance of the intangible economy, this book focuses on sunk costs, scalability, synergies, new infrastructure, management and leadership. Also addressed are so-called "spillovers" -- ideas which can easily be appropriated by competitors. They authors track the development of the intangible economy to the early twenty-first century when a quiet revolution occurred. For the first time, the major economies began to develop more intangible assets through design, branding, R&D, or software. There was less focus on tangible assets, like machinery, buildings, and computers. For all types of businesses, from tech firms and pharmaceutical companies to sandwich shops and accountancies, the ability to deploy assets that one can neither see nor touch is increasingly the main source of long-term success. *Capitalism without Capital* shows that the growing importance of intangible assets has also played a role in some of the big economic changes of the last decade. Moreover, it claims that the development of intangible investment is an underappreciated cause of problems such as economic inequality and stagnating productivity.

Sullivan, P.H. (2000). *Value-Driven Intellectual Capital*. Hoboken, NJ: Wiley & Sons Publishing.

One of the key questions this book answers is: How can buyers and sellers calculate the intellectual property assets of the acquired firm in a merger or acquisition? The author explains that since it is managerial talent that converts intellectual property into business assets, there should be methods and processes for using intellectual property as an active element of a firm's business strategy. The book discusses how value is extracted from human capital. It also focuses on identifying and valuing a firm's intellectual assets: recipes, formulae, trade secrets, inventions, programs, and processes. There is a description of intangible assets -- what they are and how to convert them into cash. In contrast to the article by Professor Butt in the following entry, Sullivan makes no effort to determine the monetary value of employees. There is an assumption that intellectual property can be separated from many of the employees of a firm.

Butt, S.A. (2013), "How to Bring Human Resource Asset into Balance Sheet without Disturbing Any Financial Accounting Standards," *La Pensée,* Vol. 75 (12). Retrieved from: https://www.researchgate.net/publication/260132543_HOW_TO_BRING_HUMAN_RESOURCE_ASSET_INTO_BALANCE_SHEET_without_disturbing_any_financial_accounting_standards

While most companies acknowledge the value of their employees, at the time this article was written, no firm had tried to show this value on its balance sheet. Professor Butt explains this is due to three main problems: a) the absence of an accepted metric to use to measure the value of this asset; b) the apparent violation of generally accepted accounting standards; and c) the possible tax liabilities that could accrue as a result of valuing this asset. The article suggests solutions to all these problems. It is proposed that the financial value of what the author calls Human Resource Asset should be equal to the excess of NPV (net present value) of a firm with existing employees over NPV of the same firm computed on the assumption of having an average quality staff. Using this metric, human resources can be measured through a formal accounting process, debiting the Human Resource Asset (to be shown in the balance sheet as an intangible asset) and crediting a Human Resource Reserve (to be shown in the balance sheet as a non-distributable part of equity). The author also proposes periodic adjustments to this method, recognizing that there will be substantial resistance to what he is proposing.

C. Natural Capital

Böhringer, C. and Jochem, P.E. (2007), "Measuring the Immeasurable -- A Survey of Sustainability Indices," *Ecological Economics*, Vol. 63 (1), pp. 1-8.

Sustainability indices for countries provide a metric to evaluate country-specific information on the three dimensions of sustainable development: economic, environmental, and social conditions. At the policy level, the authors suggest that these are often treated as unambiguous yardsticks against which a country's development can be measured and even cross-country comparisons can be made. This article reviews the explanatory power of various sustainability indices applied in policy practice. The authors show that these indices fail to fulfill fundamental scientific requirements, making them rather useless if not misleading with respect to policy advice. The work of other academics has supported these conclusions. Thus, from such research about sustainability indices, lessons may be drawn regarding challenges in the analysis and valuation of a company's sustainability performance.

Chartered Institute of Management Accountants (2014), "*Accounting for Natural Capital: The Elephant in the Boardroom*." (Rapacioli, S., Lang, S. Osborn, J. and Gould, S., authors) Retrieved from: http://www.ey.com/Publication/vwLUAssets/Accounting-for-natural-capital/$File/EY-Accounting-for-natural-capital.pdf

This report was published by the Chartered Institute of Management Accountants (CIMA), in collaboration with Ernst & Young LLP (EY), the International Federation of Accountants (IFAC), and the Natural Capital Coalition. It encapsulated the state of the art in accounting for natural capital in 2014, deriving credibility from the expertise of these respective organizations. The report does not offer specific advice on how accounting practices might change to reflect broad natural capital themes. Rather, it relies on established concepts such as material off-balance sheet liabilities to reflect decreased shareholder value. It recommends that problematic environmental issues be valued when they are discovered or announced by a corporation. This resembles the disclosures found in annual reports, which document the potential effect of law suits filed against a company. Unilever is noted by way of example; in 2013 it announced that the impact of climate change was costing the company €300 million a year as a result of drought and flooding. The usefulness of this type of corporate reporting is considerable. However, the report does not address prospects for a new methodology -- consistent with accepted accounting principles -- that shows just how questions of natural capital should influence company share price.

Danish Environmental Protection Agency (2014), "Assessment of Potentials and Limitations in Valuation of Externalities, With Special Focus on Environmental Profit and Loss," Environmental Project No. 1561. (Glensvig, D.; Sørensen, M. M., Frier, C., Enggaard, M., Pedersen, J.K. and Mohammed, M., eds.) Retrieved from: https://www2.mst.dk/Udgiv/publications/2014/03/978-87-93178-33-5.pdf

The Danish Ministry of the Environment sponsored this report, bringing together specialists from the consulting, green investing, development bank and academic communities. It highlights the components, strengths and weaknesses of Environmental Profit and Loss Statements (EP&L). Mindful of reporting costs, the authors do not recommend that such statements be prepared on an annual basis. Nor do they draw a clear connection between the market value of a company and the EP&L. Rather, using a data-driven and analytical approach, the paper explains how to create an EP&L which is separate from the valuation process a firm, valuator or potential investor might use to appraise a company. Two case studies of companies that have used EP&Ls are presented: PUMA and Novo Nordisk.

Dowell, G., Hart S. and Yeung, B. (2000), "Do Corporate Global Environmental Standards Create or Destroy Market Value?" *Management Science*, Vol. 46 (8), pp. 1059-1074.

The authors analyze the global environmental standards of a sample of US-based multinational enterprises in relation to their stock market performance. They find that firms adopting a single, stringent global environmental standard have much higher market values than firms using less stringent standards. Accordingly, developing countries that use lax environmental regulations to attract foreign direct investment may end up attracting poorer quality, and perhaps, less competitive firms. For example, by specifying a single corporate standard, a firm's performance monitoring and evaluation costs might be reduced. A single set of values, specifications, and procedures can be deployed throughout the world, without the need to consider local deviations. Through this process, firms can actually use the environment as a strategic competitive advantage by speeding up the process of committing to standards that exceed those of host countries. Companies that use enhanced environmental standards might also benefit from heightened employee morale and thus productivity.

Smith School of Enterprise and Environment, University of Oxford (2013), "Stranded Assets and the Fossil Fuel Divestment Campaign: What Does Divestment Mean for the Valuation of Fossil Fuel Assets?" (Ansar, A., Caldecott, B.L. and Tilbury, J., authors) Retrieved from: http://www.smithschool.ox.ac.uk/publications/reports/SAP-divestment-report-final.pdf

This paper is about divestment, which is widely understood. But it also about stranded assets – those that have suffered from unanticipated or premature write-downs, devaluations or conversion to liabilities. A range of risks, which are often misunderstood and mispriced, could result in stranded assets. Here, the stranded assets under consideration are caused by divestiture campaigns initiated due to environment-related risks associated with fossil fuels. The goal of a fossil fuel divestiture campaign is to lower the value of assets owned by a company, and through this process lower the value of a company. The paper reviews discount rates, probabilities of outcomes and effects on cash flow. It concludes with three helpful sets of recommendations aimed at investors, fossil fuel companies and campaigners.

Smith School of Enterprise and Environment, University of Oxford (2014), "Financial Dynamics of the Environment: Risks, Impacts, and Barriers to Resilience," Working Paper for the UNEP Inquiry into the Design of a Sustainable Finance System. (Caldecott, B. and McDaniels, J., authors). Retrieved from: http://www.smithschool.ox.ac.uk/research/sustainable-finance/publications/UNEP-SSEE-Working-Paper-Financial-Dynamics-of-the-Environment.pdf

This Working Paper, commissioned by the UN Environment Programme Inquiry into the Design of a Sustainable Finance System, aims to be a useful initial reference guide that:

- summarizes the underlying logic for why the financial sector should care about the state of the environment and environment-related risks;
- reviews the main structural barriers that could prevent the financial system from managing such issues;
- identifies the main researchers and organizations undertaking work on these topics internationally.

The paper covers a variety of issues related to sustainability, carbon risk, stranded assets, natural capital, conservation, natural infrastructure, ecosystem resilience and natural disasters. Attention is given to ESG (Environmental, Social and Governance) reporting, as well as to the capacity of global financial governance regimes to identify and address risks. While the paper takes a broad geopolitical perspective, its insights are relevant to the context of corporate valuation.

D. Reputational Capital

Klewes, J. and Wreschniok, R., eds. (2010), *Reputation Capital: Building and Maintaining Trust in the 21st Century*. Berlin, Germany: Springer-Verlag Berlin Heidelberg.

Klewes and Wreschniok have produced a valuable book that documents the importance of reputations. While an overall methodology for valuing reputation is not presented, the authors of individual chapters contribute case studies, descriptions and models of how organizations build good reputations and, in some cases, destroy value as reputations diminish. A problematic aspect of the reputation literature is the reliance upon changes in stock market prices to gauge the impact of corporate involvement in crimes, environmental disasters or other type of reputation-damaging events. As with many books comprised of an edited collection of chapters, this one represents a range of specialist expertise. However, it tends to lack a unifying logic and would have benefited from a concluding chapter to bring the various streams together.

Part Two: Review of Thought Leadership on Sustainable Value Creation and Measurement

The landscape of company valuation is changing rapidly. A review of academic literature would not be complete without consideration of the remarkable developments in thought leadership. Across diverse constituencies, innovative platforms and coalitions are seeking to clarify questions of sustainable value creation and measurement. These include standard-setting agencies, civil society organizations, research institutes, professional firms, public and privately held companies, and a wide range of actors in the financial sector. Many of these coalitions also engage with global economic governance organizations and local government regulators. With a practical focus, such efforts will deepen the discourse -- and mobilize action -- towards a new paradigm of company valuation for long-term sustainability.

1. B Lab

B Lab is a non-profit organization that serves a global movement to promote business as a force for good; www.bcorporation.net. A key initiative is the designation of Certified B Corporations. This assessment process recognizes companies that meet the highest standards of verified social and environmental performance, public transparency, and legal accountability. There are now nearly 2,800 Certified B Corporations across 150 industries in 64 countries. A new publicly-available online platform, under development in 2019, will leverage the B Impact Assessment to allow companies around the globe to manage their impact through performance on the United Nations Sustainable Development Goals (SDGs). Moreover, future plans include an initiative to "scale true accounting." In partnership with organizations in the finance sector, the B Lab intends to help pilot, scale and standardize new metrics that enhance the flow of capital toward businesses driving positive environmental impacts and restoring nature; http://www.bteam.org/challenge/scale-true-accounting/. The movement is supportive of, but distinct from, Benefit Corporations. This is a new class of corporation, established by relevant state and local laws, through which businesses voluntarily commit to meeting certain standards of corporate purpose, accountability, and transparency; see www.benefitcorp.net.

2. Carbon Disclosure Project (CDP)

The Carbon Disclosure Project, now referred to as CDP, oversees a global disclosure system that enables companies, cities, states and regions to measure and manage their environmental impacts; https://www.cdp.net/en. It has built the most comprehensive collection of self-reported environmental data in the world, drawing on the work of partners located in 50 countries. CDP's network of investors and purchasers, representing over $100 trillion, along with policy-makers, use the data and insights to make better-informed decisions and support a sustainable economy.

In November of 2018, major international corporate reporting standard-setters and framework providers launched a ground-breaking new project focused on driving better alignment in the corporate reporting landscape; https://www.cdp.net/en/articles/media/leading-corporate-reporting-bodies-launch-two-year-project-for-better-alignment. The aim is to make it easier for companies to prepare effective and coherent disclosures that meet the information needs of both capital markets and society. The project will help identify how non-financial metrics relate to financial outcomes, and how this can be integrated in mainstream reports. The work is being undertaken in the context of the Corporate Reporting Dialogue, with the engagement of financial standard-setters, to facilitate the ultimate objective of integrating financial and non-financial reporting.

3. Caux Round Table for Moral Capitalism

The Caux Round Table for Moral Capitalism is an international network of business leaders that develops intellectual strategies, management tools and best practices to strengthen private enterprise, public governance, and the positive values of the economic system; http://www.cauxroundtable.org/. It is currently devoting substantial attention to the role of the private sector in advancing the Sustainable Development Goals. The Global Executive Director, Stephen B. Young, has a long-standing commitment to the development of new methodologies for company valuation that would embrace a wider range of values supportive of sustainable social justice; see his contribution "The Search for Moral Capitalism and the Holy Grail of Business Valuation," *Ivey Business Journal*, March/April 2004;
https://iveybusinessjournal.com/publication/the-search-for-moral-capitalism-and-the-holy-grail-of-business-valuation/.

4. Coalition for Inclusive Capitalism

The Coalition for Inclusive Capitalism is a high-level initiative to make capitalism more equitable, sustainable and inclusive. Business and financial leaders examine issues such as long-term shareholder value, integrated reporting, and workforce advancement; www.inc-cap.org. Of note are its annual conferences, which aim to combine thought leadership with practical avenues for action. These Conferences, held in both London and New York, have made clear that progress towards Inclusive Capitalism will depend on genuine change in the workings of the capital markets. A new reporting mechanism is required for corporations to better measure and communicate the value they create for shareholders through strategic attention to their broad base of stakeholders: customers, employees, communities, government, and the environment. This conviction gave rise to the Embankment Project, described below, which is particularly relevant to the challenges of company valuation.

The Coalition for Inclusive Capitalism can be understood as part of a broader movement that involves organizations such as the Aspen Institute Program on Business and Society, Business for Social Responsibility, Conscious Capitalism, and indeed, the Caux Round Table. In 2016, the Saïd Business School at the University of Oxford, with financial support from the Ford Foundation, undertook a study of this movement. The resulting report, *In Pursuit of Inclusive Capitalism: Business and Approaches to Systemic Change*, is based on research and interviews with more than 40 heads of non-governmental organizations seeking to promote more inclusive approaches to capitalism; https://www.sbs.ox.ac.uk/sites/default/files/research-projects/Images/ford-report.pdf

5. Embankment Project for Inclusive Capitalism

The Embankment Project for Inclusive Capitalism (EPIC) aims to develop a framework that measures long-term value creation for all stakeholders. As noted above, this is a key initiative of the Coalition for Inclusive Capitalism. EY took the lead in the Embankment Project, drawing on a white paper it presented on the subject in 2016; http://www.ey.com/Publication/vwLUAssets/Long_term_value_white_paper_December_2016/%24FILE/EY-LTV-white-paper-v14.pdf.

The resulting collaboration, guided by an expert advisory council, involved more than 30 global companies. They considered a proposed framework that could serve as a tool for asset owners and asset managers -- but also other stakeholders -- to understand, measure and compare the investments made by corporations in their purpose, brand, intellectual property, products, employees, environment and communities. In 2018, EY prepared a 2-page brief on this long-term value framework that succinctly listed the main challenges to overcome; https://www.eycom.ch/en/Publications/20180327-Long-term-value/download. Indeed, these mirror some of the concerns brought out in this review of academic literature and thought leadership on company valuation:

- Disconnect between profits and shareholder returns: profit is a short-term value indicator, while shareholder returns accrue over the long term.
- Measuring the wrong things: things that can be more readily measured are typically tangible assets that are reported on the balance sheet.
- Diminishing trust in organizations: companies to demonstrate their responsible behavior actively across all aspects of their operations.
- Increased information demands reduce clarity: no fundamental re-think of how value is measured and communicated.

In November 2018, the report of the Embankment Project for Inclusive Capitalism was released; https://www.epic-value.com/#report. The focus is on four key value drivers of long-term, sustainable growth: talent, innovation, society and government, governance. It acknowledges the need for further development of the framework, as well as for meaningful commitment on the part of companies and investors. While this EPIC report marks a significant contribution to both the analysis and the practical application of new methodologies, it also points to the task ahead:

> We recognize that more work needs to be done to capture the full range of corporate activities and assets that create long-term value and will continue to test the project results, as well as work with other like-mind initiatives, to continue this journey. Ultimately, we believe that if the EPIC value drivers and associated narratives are reported by companies through applicable metrics, we will have a clearer understanding of how businesses create both long-term value and stable and inclusive economies. This would go a long way to improving trust and confidence in the capital markets.

6. EU Directive on Non-financial Disclosure

As of 2018, European Union (EU) law requires large companies to disclose certain information on the way they operate and manage social and environmental challenges; https://ec.europa.eu/info/business-economy-euro/company-reporting-and-auditing/company-reporting/non-financial-reporting_en. This helps investors, consumers, policy makers and other stakeholders to evaluate the non-financial performance of large companies and encourages these companies to develop a responsible approach to business. EU Directive 2014/95/EU, which amends accounting directive 2013/34/EU, sets out the rules on disclosure of non-financial and diversity information by large companies; https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52017XC0705(01)&from=EN. From 2018 onward, such companies are required to include non-financial statements in their annual reports. The rules on non-financial reporting only apply to large public-interest companies with more than 500 employees. (This covers approximately 6,000 companies and groups across the EU, including listed companies, banks, insurance companies, and other companies designated by national authorities as public-interest entities.) Under the Directive, large companies must publish reports on the policies they implement in relation to:

- environmental protection
- social responsibility and treatment of employees
- respect for human rights
- anti-corruption and bribery
- diversity on company boards (in terms of age, gender, educational and professional background)

From a policy perspective, official EU documents indicate that "Greater transparency is expected to make companies more resilient and perform better, both in financial and nonfinancial terms. Over time this will lead to more robust growth and employment and increased trust among stakeholders, including investors and consumers. Transparent business management is also consistent with longer-term investment." The UK Financial Reporting Commission (FRC) has issued a factsheet with guidance on how UK company law has been amended in light of this EU Directive, notably with respect to non-financial disclosure requirements; https://www.frc.org.uk/getattachment/3dfe0ac6-ac6d-41a0-91bf-df98cbba0ad6/Non-Financial-Reporting-Factsheet-Final.pdf. Given the process currently underway for the United Kingdom to withdraw from the EU, further UK legal changes can be anticipated.

7. Focusing Capital on the Long Term

Focusing Capital on the Long Term, initiated in 2013, is now a not-for-profit organization known as FCLTGlobal; https://www.fcltglobal.org/about/our-work. The main aim is to encourage a longer-term focus in business and investment decision-making by developing practical tools and approaches to support long-term behaviors across the investment value chain. It describes itself as follows:

> Our organization is dedicated to rebalancing investment and business decision-making towards the long-term objectives of funding economic growth and creating future savings. We take an active approach to achieving our goals by:
>
> - Conducting research and developing practical ideas based on solid evidence
> - Engaging the world's top asset owners, asset managers, and corporations to problem-solve and test capital allocation approaches that create long-term value
> - Developing educational resources and actionable approaches that are available and applicable globally
> - Generating measurable change in capital markets behavior among savers, investors, corporations and other stakeholders

The staff at FCLTGlobal prepares research papers to encourage a long-term mindset, including on topics such as: empirical measurement of progress towards long-term investment behavior; alternative approaches to assessing risk and volatility; decision-making for capital allocation; investor/corporate dialogue; the role of the corporate board. The annual report provides an overview of activities; https://www.fcltglobal.org/docs/default-source/publications/fcltglobal-review-2018---laying-the-foundation- for-the-long-term.pdf?sfvrsn=d713218c_2

8. Forum for Sustainable and Responsible Investment

The Forum for Sustainable and Responsible Investment (US SIF) is a hub for the sustainable, responsible, and impact investing (SRI) market in the United States. US SIF attracts a broad array of members who are committed to achieving both positive societal and environmental impact and competitive returns; www.ussif.org. Its membership includes investment management and advisory firms, mutual fund companies, research firms, financial planners and advisors, broker-dealers, banks, credit unions, community development organizations, non-profit associations, and pension funds, foundations and other asset owners. It offers a range of resources on sustainable, responsible and impact investing; the integration of environmental, social and governance (ESG) issues into investment choices; information about financial performance with SRI; as well as annual reports on Socially Responsible Investing Trends. US SIF's mission is to rapidly shift investment practices towards sustainability, focusing on long-term investment and the generation of positive social and environmental impacts. Its overall vision is for environmental, social and governance impacts to be meaningfully assessed in all investment decisions resulting in a more sustainable and equitable society. US SIF is also a member of the Global Sustainable Investment Alliance, through which it collaborates with several similar organizations around the world; http://www.gsi-alliance.org/

9. Future of the Corporation Project

The Future of the Corporation Project is "a major research and public engagement program aiming to develop an evidence base that will serve as a foundation to redefine business for the 21st century and build trust between business and society." Hosted by the British Academy, this project is being led by Professor Colin Mayer, CBE, FBA, Professor of Management at the Saïd Business School, University of Oxford; https://www.britac.ac.uk/future-corporation. The core aims of the commissioned research are:

- To be a proactive partner in the movement for engaging a wide range of business leaders around the world to bring about positive change.
- To shape and guide policy through evidence-based recommendations for the UK and worldwide that will enable governments to support purposeful businesses.
- To influence business practice through recommendations for change that achieve profitable, sustainable outcomes.
- To influence how business is taught and researched in business schools and universities around the world.

The initial research examined ten themes: history, trust, corporate purpose, corporate culture, technology, corporate governance, long-term investment, ownership, law, taxation and regulation, and social benefit. The findings, presented in November 2018, set forth a new framework for reforming business for the 21st Century; https://www.thebritishacademy.ac.uk/sites/default/files/Reforming-Business-for-21st-Century-British-Academy.pdf.

Defining and aligning a corporation's purposes are key:

- Corporate purpose is distinct from the consequential implications for the corporation's profitability and shareholder returns.
- The purpose of corporations is not to produce profits. The purpose of corporations is to produce profitable solutions to the
- problems of people and planet. In the process it produces profits, but profits are not per se the purpose of corporations.

The precise business practices and policy implications of this far-reaching framework are now being considered. Recommendations will focus on corporate law and regulation, ownership and governance, measurement and performance, and finance and investment. The overall Future of the Corporation program, including its continuous engagement with leaders from business, government and civil society, will yield insights on the changing parameters of company valuation.

10. Global Impact Investment Network

The Global Impact Investing Network (GIIN) is dedicated to increasing the scale and effectiveness of impact investing around the world; www.thegiin.org. It explains that, "Impact investments are investments made into companies, organizations, and funds with the intention to generate positive, measurable social and environmental impact alongside a financial return." Depending upon investor objectives, such investments can be made in both emerging and developed markets and may target a range of financial returns. The GIIN supports activities, education, and research to accelerate the development of a coherent impact investing industry.

The GIIN has developed a comprehensive impact measurement and management system called IRIS+; www.iris.thegiin.org. Launched in May 2019, it intends to make it easier for investors to translate their impact intentions into real impact results. IRIS+ provides investors with access to Core Metrics Sets to increase data clarity and comparability across portfolios. It is also aligned to other frameworks such as the UN Sustainable Development Goals. Overall, the system aims to optimize investment impact by offering practical guidance and resources; https://s3.amazonaws.com/giin-web-assets/iris/assets/press/IRIS-Press-Release_Final.pdf

11. Global Reporting Initiative

The Global Reporting Initiative (GRI) is an international multi-stakeholder effort for voluntary reporting of the economic, environmental and social impacts of business. It provides a repository of corporate reports in the Sustainability Disclosure Database; www.globalreporting.org. The

GRI is also partnering with CDP (described in entry 2 above), an organization that provides a unique global stem for companies and cities to measure, disclose, manage and share vital environmental information; https://www.globalreporting.org/information/news-and-press-center/Pages/Companies-to-benefit-as-CDP-and-GRI-collaborate-to-harmonize-reporting-frameworks.aspx.

12. Impact Institute

The Impact Institute, founded in 2018 as a social enterprise, originated from a non-profit organization called True Price. True Price, which had developed methods to measure and monetize impact, has continued with its main activity -- notably in maintaining a system whereby consumers can see and voluntarily pay the “true price” of their products; https://trueprice.org/. The true price is construed as the market price plus the unpaid external costs. In June 2019, it launched a consultation period to beta-test a vision paper entitled “A Roadmap for True Pricing;” https://trueprice.org/a-roadmap-for-true-pricing/.

The Impact Institute has expertise in impact measurement, accounting, and valuation; https://www.impactinstitute.com/. In pursuit of an “impact economy,” it notes the following accomplishments:

- Developed the first method worldwide to measure social and environmental costs in value chains, as well as to calculate an Integrated Profit & Loss Account.
- Founded the cross-domain Principles for Impact Measurement and Valuation across the six capitals (Financial, Natural, Social, Human, Intellectual, and Manufactured) and developed the integrated Profit & Loss Account Protocol.
- Contributed to global standards and open source method.
- Came to be recognized as a worldwide leader in impact measurement and valuation.

The Impact Institute has recently elaborated a “Framework for Impact Statements,” which is now in the consultation phase; https://www.impactinstitute.com/framework-for-impact-statements/. This is described as follows:

> This framework intends to help organizations construct their own impact statements, setting their context and outlining the five key elements they constitute: the Integrated Profit & Loss (IP&L) Statement and its four derivatives, the Investor Value Creation Statement, the Stakeholder Value Creation Statement, the External Cost Statement, and the Sustainable Development Goals (SDG) Contribution Statement. Together, these statements provide a quantified and robust overview of value creation for an organization's stakeholders in terms of the six capitals of the IIRC (Financial, Manufactured, Intellectual, Human, Social, and Natural). This framework thus also equips organizations with the principles that should be followed in the development of their impact statements.

Such elements could contribute to a new model of company valuation. The Impact Institute expects to publish a revised framework in January 2020, upon completion of the review process.

13. International Integrated Reporting Council

The International Integrated Reporting Council (IIRC) is a global coalition of regulators, investors, companies, standard setters, the accounting profession, and NGOs. It has developed an international <IR> framework that focuses on value creation as the next step in the evolution of corporate reporting; http://integratedreporting.org/wp-content/uploads/2015/03/13-12-08-THE-INTERNATIONAL-IR-FRAMEWORK-2-1.pdf. The framework sets forth the following objectives:

> The IIRC's long term vision is a world in which integrated thinking is embedded within mainstream business practice in the public and private sectors, facilitated by Integrated Reporting <IR> as the corporate reporting norm. The cycle of integrated thinking and reporting, resulting in efficient and productive capital allocation, will act as a force for financial stability and sustainability. <IR> aims to:
>
> - Improve the quality of information available to providers of financial capital to enable a more efficient and productive allocation of capital
> - Promote a more cohesive and efficient approach to corporate reporting that draws on different reporting strands and communicates the full range of factors that materially affect the ability of an organization to create value over time
> - Enhance accountability and stewardship for the broad base of capitals (financial, manufactured, intellectual, human, social and relationship, and natural) and promote understanding of their interdependencies
> - Support integrated thinking, decision-making and actions that focus on the creation of value over the short, medium and long term.

Among the IIRC's useful resources are the following:

- A background paper commissioned in 2013 on value creation:

  http://integratedreporting.org/wp-content/uploads/2013/07/IR-Background-Paper-Value.pdf
- An ongoing series of publications called *Creating Value* that brings together trends, research, market views and case studies on <IR>.
- A report developed in collaboration with the Association of International Certified Public Accountants, entitled *Purpose Beyond Profit*, that notes the benefits of bringing financial and non-financial information together. It provides board level insights on the value of values: http://integratedreporting.org/wp-content/uploads/2018/02/Profit_Purpose.pdf
- An article that seeks to apply the traditionally proven approaches of financial reporting to the new and broader capitals framework:
  http://integratedreporting.org/news/intangible- balance-sheet/

14. Natural Capital Coalition

The Natural Capital Coalition is centered around the Natural Capital Declaration, which was launched at the UN Conference on Sustainable Development (Rio+20) in 2012; http://www.unepfi.org/fileadmin/documents/ncd_booklet.pdf. The CEOs of more than 40 financial institutions are now signatories, affirming their support for the eventual integration of natural capital considerations into financial sector reporting, accounting, and decision-making by 2020. The Declaration sets out four key commitments:

1. Build an understanding of the impacts and dependencies on natural capital relevant to our operations, risk profiles, customer portfolios, supply chains and business opportunities.
2. Support the development of methodologies that can integrate natural capital considerations into the decision-making process of all financial products and services - including in loans, investments and insurance policies. We recognize that given the diversity of the financial sector, embedding natural capital considerations will differ across asset classes and types of financial institutions. We therefore aim to build on work undertaken through other initiatives, such as the UN-supported Principles for Responsible Investment, the Equator Principles, the United Nations Environment Programme Finance Initiative (UNEP FI) Principles for Sustainable Insurance, and The Economics of Ecosystems and Biodiversity (TEEB), so that we can develop methodologies to:
    a. Apply a holistic approach to evaluating bonds and equities through the integration of natural capital considerations in environmental, social and governance (ESG) risk analysis in short, medium and long-term growth forecasts of investee companies;
    b. Systematically consider and value natural capital considerations in the credit policies of specific sectors, including commodities, that may have a major impact on natural capital either directly or through the supply chain;
    c. Systematically consider and value natural capital considerations in core insurance business strategies and operations including risk management, risk underwriting, product and service development, claims management, sales and marketing, and investment management.
3. Work towards building a global consensus for the integration of natural capital into private-sector accounting and decision-making; supporting, when appropriate, the related work of The Economics of Ecosystems and Biodiversity (TEEB) for Business Coalition, and other stakeholders.
4. Collaborate, when appropriate, with the International Integrated Reporting Council and other stakeholders to build a global consensus around the development of Integrated Reporting, which includes natural capital as part of the wider definition of resources and relationships key to an organization's success.

The Natural Capital Coalition is comprised of over 270 organizations from a wide range of stakeholder groups including conservation, science and academia, business, associations, standard-setting, finance, accountancy and policy/government. Through a collaborative process it developed the Natural Capital Protocol, launched in 2016, to make the value of natural capital visible in business decision making;
https://naturalcapitalcoalition.org/wp- content/uploads/2018/05/NCC_Protocol_WEB_2016-07-12-1.pdf.

The Protocol offers businesses a variety of techniques and approaches to consider as they identify, measure and value their direct and indirect impacts and dependencies on natural capital. The Coalition, in association with the University of Cambridge Institute for Sustainability Leadership, also implemented a Natural Capital Protocol Application Program. This supported businesses in their use of the Natural Capital Protocol, and also yielded case-studies; https://naturalcapitalcoalition.org/protocol/protocol-application-program/

15. Natural Capital Finance Alliance

The Natural Capital Finance Alliance (NCFA) is a collaboration between the UN Environment Programme Finance Initiative and the financial sector to lead the integration of natural capital considerations into financial decision-making; http://www.naturalcapitalfinancealliance.org. The NCFA aims to drive innovation and develop the practical tools that enable financial institutions to better understand risks, pursue opportunities, and establish the foundations for resilient long-term economic growth. The NCFA has developed a series of resources to support such assessments, enabling financial sector to better understand - at both asset and portfolio level - the risks and opportunities associated with natural capital. In April 2018, the NCFA, alongside the Natural Capital Coalition and the Dutch Association of Investors for Sustainable Development (VBDO), launched a supplement to the Natural Capital Protocol. See http://www.naturalcapitalfinancealliance.org/finance-sector-supplement; and the press release, https://naturalcapital.finance/blog/connecting-finance-and-natural-capital-a-supplement-to-the-natural-capital-protocol.

The Supplement aims to help financial institutions incorporate natural capital impact and dependency considerations into their lending, investment and insurance practices. It recognizes that the deterioration of the natural systems that underpin the global economy may pose significant consequences for many businesses, and subsequently, for those who have financed or insured them. The Supplement will guide financial institutions through the process of identifying, measuring and valuing material risks and opportunities as a means of informing financial decision making.

16. Organization for Economic Cooperation and Development

The Organization for Economic Cooperation and Development (OECD) supports significant initiatives related to the private sector, including in corporate governance, anti-corruption, and the OECD Guidelines for Multinational Enterprises. It hosts an annual Global Forum on Responsible Business Conduct, which in 2017 considered how responsible business conduct contributes to the SDGs; http://mneguidelines.oecd.org/global-forum/2017-GFRBC-Session-Note-Contributing-to- SDGs.pdf. In 2018, the forum focused on due diligence; http://mneguidelines.oecd.org/global-forum/2018-global-forum-responsible-business-conduct.htm.

In June of 2019, the Global Forum on Responsible Business Conduct will take place in Bangkok, Thailand, as part of a wider Responsible Business and Human Rights Forum; https://www.rbhrforum.com/agenda. Of potential interest with respect to company valuation is the work of the OECD on achieving well- being and inclusive growth; http://www.oecd.org/statistics/measuring-well-being-and-progress.htm.

The OECD has established a High-Level Expert Group on the Measurement of Economic Performance and Social Progress. There is also an emerging focus, advanced through a series of workshops, on the role of private sector in shaping good outcomes for individuals, communities and societies; for example, https://www.oecd.org/statistics/Biz4WB-Highlights- OECD.pdf.

A key challenge is the extent to which a well-being and inclusive growth approach can be fully integrated into business models and measurement frameworks. Further insights on such efforts were offered at the 6th OECD World Forum on Knowledge, Statistics and Policy, held in Korea in November 2018; https://www.oecd-6wf.go.kr/eng/main.do. With an overall Forum theme of "The Future of Well-being," part of the agenda was dedicated to measuring the impact of business on well-being and sustainability. Preparatory research included questions such as: Has the change in reporting under frameworks such as GRI and SASB translated into a change in business performance, and if so, in what ways (*e.g.*, financial, societal)? How do firms adapt to an environment of increasing demands on measuring their impact? Are there trade- offs and/or complementarities between societal and economic performance? Are investors adapting their portfolios in a way that reflects the new information that goes beyond financial performance to the impact on people's well-being? The Final Forum Statement noted that: "Experts agreed that developing a deeper understanding of how businesses impact on people's well-being and planet's sustainability through robust measurement frameworks will be crucial for supporting more inclusive business models, and will enable business leaders who are setting a new course foster more sustainable and people-minded strategies.";
https://www.oecd-6wf.go.kr/pdf/FINAL_FORUM_STATEMENT_eng.pdf.
The findings of this OECD initiative might inform certain issues related to company valuation.

17. Principles for Responsible Banking

Principles for Responsible Banking are being developed under the auspices of the UN Environment Program's Finance Initiative (UNEP FI);
https://www.unepfi.org/banking/bankingprinciples/. While drawing on the experience of the Principles for Responsible Investment, this new set of Principles is designed specifically for the banking sector. The effort has involved 28 banks from five continents, jointly representing more than USD 17 trillion in assets, along with 12 civil society organizations. A public consultation period with banks and stakeholders began in November 2018 and concluded in May 2019; https://www.unepfi.org/wordpress/wp-content/uploads/2019/05/PRB-Consultation-Document-11-Web-1.pdf. The documentation is being finalized, and preparations are underway for a high-level launch event in New York City on 22-23 September 2019, during the annual UN General Assembly session.

The Principles will help banks to align their activities with the Sustainable Development Goals (SDGs) and the Paris Climate Agreement. This will yield new opportunities for creating value for both society and shareholders, while building trust with investors, customers, employees and other stakeholders. The Principles require banks to be more transparent and accountable about their positive and negative impacts. Practical guidance, including on measurement and benchmarking, will be offered. Overall, the Principles aim to provide the banking industry with a single framework that embeds sustainability at the strategic, portfolio and transactional levels and across all business areas.

18. Principles for Responsible Investment

Principles for Responsible Investment (PRI) is an international network of institutional investors that have committed to upholding a set of principles; www.unpri.org. Initially developed by the UN Global Compact and the UN Environment Programme, these principles acknowledge the materiality of environmental, social and governance (ESG) issues in investment decision-making and ownership practices. Also recognized is their potential role in better aligning investors with broader societal objectives. The Principles of Responsible Investment provide as follows:

Principle 1: We will incorporate ESG issues into investment analysis and decision-making processes.
Principle 2: We will be active owners and incorporate ESG issues into our ownership policies and practices.
Principle 3: We will seek appropriate disclosure on ESG issues by the entities in which we invest.
Principle 4: We will promote acceptance and implementation of the Principles within the investment industry.
Principle 5: We will work together to enhance our effectiveness in implementing the Principles. Principle 6: We will each report on our activities and progress towards implementing the Principles.

The PRI offers a comprehensive collection of resources organized under the headings of environmental, social and governance topics. This includes, for example, materials on the investment case for SDGs; https://www.unpri.org/download?ac=5909. It hosts a collaboration platform, regional conferences, as well as practical training programs for the industry. Moreover, PRI convenes a global academic research network that focuses on innovative responsible investment projects. For example, in April 2018, it showcased a report on how ESG engagement creates value for investors and companies; https://www.unpri.org/asset-owners/academic-research. In December of 2018, it released “Climate Change and the Just Transition: A Guide for Investor Action”; https://www.unpri.org/download?ac=5668.

19. Professional and Financial Firms and Associations

An important source of thought leadership on new approaches to company valuation is found within global consulting and accountancy groups, financial services firms, and related industry associations. By way of example, such contributions include:

- Aviva, as a multinational insurance and investment group, is engaged in a number of initiatives in the field of sustainable finance – such as a report on the private sector contribution to financing the SDGs; https://www.aviva.com/social-purpose/sustainable-finance-and-the-sdgs/. Aviva is also leading a collaborative effort to advance a World Benchmarking Alliance; www.worldbenchmarkingalliance.org. This includes the development of a corporate sustainability benchmark, ranking companies on their sustainability performance and contribution to the SDGs.
- Boston Consulting Group has developed Total Societal Impact (TSI) as a new lens for

company strategy, in relation to the traditional approach of maximizing total shareholder return (TSR); https://www.bcg.com/Images/BCG-Total-Societal-Impact-Oct-2017-R_tcm38-174019.pdf.

- The Convention of Independent Financial Advisors (CIFA), is a non-profit Swiss foundation concerned with finance, asset management and global financial counseling; http://www.cifango.org/. CIFA enjoys General Consultative Status with the UN Economic and Social Council, and has a long-standing interest in the relationship between finance and the broader social good. The theme for its 2019 annual conference, which took place in New York in May, was "How to Mobilize Private Finance Towards Funding the UN-SDGs?"; http://cifango.org/uploads/FINAL_Program_CIFA_FORUM_2019_EN_V30-[1-2]-HQ.pdf
- EY has established the Beacon Institute, a community of business leaders, board members and academics focused on helping organizations create long-term value and navigate the disruptive forces shaping the 21st century. The Beacon Institute provides research, insights and advice aimed at the growing movement of purpose-led businesses. It also seeks to bring together early adopters and leading thinkers who have embraced purpose as a means to drive real change in the working world; https://www.ey.com/gl/en/issues/ey-beacon- institute.
- KPMG True Value, introduced in 2015, is a tool that aims to connect corporate and societal value creation. An understanding of how the value a business creates and reduces for society is likely to affect the value it creates for shareholders provides a new lens for decision- making. As a project summary explains:

KPMG True Value is a 3-step process that can be applied across sectors and geographies. It is scalable and can be applied to a whole company, a division or a specific project.

Step 1: Identify the value a company creates and reduces for society through its externalities and express this in financial terms

Step 2: Assess how the internalization of externalities is likely to affect future earnings (through regulation, stakeholder action and market dynamics)

Step 3: Develop business cases that build and protect future value for shareholders by increasing the value created for society.

For a company, the potential benefits of using the tool are to improve performance, inform strategy, and increase influence;
https://home.kpmg.com/content/dam/kpmg/ae/pdf/introduction-kpmg-truevalue.pdf.

20. Re-Evaluation of the Capitalist System

In recent years, a series of books has offered a re-evaluation of the capitalist system from a variety of critical perspectives. Often aimed at professional as well as popular audiences, such works provide insights supportive of new approaches to company valuation. Some common themes include: historical grounding in works by Adam Smith, Karl Marx, Max Weber, Milton Friedman and others; challenges to the free market; the dynamics of globalization and international trade; causes and consequences of the 2008 Global Financial Crisis; geopolitical and systemic threats; corporate purpose and governance; corporate values, ethics and social responsibility;

accountability and enforcement; the nature of work; executive compensation; reinvention of the corporation; shareholders and stakeholders; social and economic inequality; erosion of trust; industrial restructuring; internalization of externalities; the role of business leadership.

Publications of note include:

- Barnes, Kenneth J. (2018), *Redeeming Capitalism*. Grand Rapids, MI: Wm. B. Eerdmans Publishing Co.
- Chang, Ha Joon (2011), *23 Things They Don't Tell You about Capitalism*. London: Bloomsbury Publishing.
- Collier, Paul (2018), *The Future of Capitalism: Facing the New Anxieties*. London: Allen Lane.
- Mackey, John and Sisodia, Rajendra (2014), *Conscious Capitalism: Liberating the Heroic Spirit of Business*. Boston, MA: Harvard Business Review Press.
- Mayer, Colin (2018), *Prosperity -- Better Business Makes the Greater Good*. Oxford: Oxford
University Press.
- Piketty, Thomas (2017), *Capital in the Twenty-First Century*. Cambridge, MA: Harvard University Press.
- Plender, John (2016), *Capitalism: Money, Morals Markets*. London: Biteback Publishing Ltd.
- Rangan, Subramanian, ed. (2018), *Capitalism Beyond Mutuality? Perspectives Integrating Philosophy and Social Science*. Oxford: Oxford University Press.
- Reich, Robert (2016), *Saving Capitalism: For the Many, Not the Few*. London: Icon Books Ltd.
- Roche, Bruno and Jakub, Jay (2017), *Completing Capitalism: Heal Business to Heal the World*. Oakland, CA: Berrett-Koehler Publishers.
- Stiglitz, Joseph E. (2019), *People, Power, and Profits – Progressive Capitalism for an Age of Discontent*. New York, NY: W. W. Norton & Company, Inc.
- Young, Stephen B. (2015), *The Road to Moral Capitalism.* Cardiff, CA: Waterside Productions, Inc.

Finally, in this context, it is also worth highlighting the Harvard Business School course on "Reimagining Capitalism: Business and Big Problems." Taught by Professor George Serafeim and Professor Rebecca Henderson, this elective offering within the MBA program now attracts hundreds of students. The course syllabus, as well as the academic publishing lists, indicate a number of topics of relevance to questions of company valuation. This includes, for example, the exponential growth in the number of companies reporting environmental, social and governance (ESG) data and the demands for changes in measurement and corporate reporting; https://static1.squarespace.com/static/5ab6840d5cfd79e054b42432/t/5ad6a5c8f950b724bbd2d0d2/1524016585121/Serafeim+Syllabus+%281%29.pdf;
https://www.hbs.edu/faculty/Pages/profile.aspx?facId=15705&facInfo=pub.

21. SIGMA Project – The Five Capitals

The SIGMA Project, which stands for "Sustainability—Integrated Guidelines for Management," was founded in 1999 through a partnership between the British Standards Institution, Forum for the Future, and AccountAbility; http://www.projectsigma.co.uk/default.asp. It marks an early effort to describe the five capitals -- natural, human, social, manufactured, and financial -- and apply them to business practice. The following links help illustrate the conceptual development of the five capitals through these organizations, as well as through the International Integrated Reporting Council (IIRC, as described above):

- http://www.projectsigma.co.uk/Guidelines/Principles/Capitals/The5Capitals.asp.
- https://www.forumforthefuture.org/Handlers/Download.ashx?IDMF=8cdb0889-fa4a-4038-9e04-b6aefefe65a9
- http://www.accountability.org/standards/
- http://integratedreporting.org/wp-content/uploads/2013/03/The-Capital-Methods-of-literature-review-and-sources.pdf
- http://integratedreporting.org/wp-content/uploads/2013/03/The-Capitals-Visuals-of-alternative-models-of-capitals-.pdf
- https://www.tellus.org/pub/The%20Five%20Capitals%20of%20Integrated%20Reporting-Toward%20a%20Holistic%20Architecture%20for%20Corporate%20Disclosure.pdf

22. Smith School of Enterprise and the Environment

The Smith School of Enterprise and the Environment (SSEE), founded at the University of Oxford ten years ago, is a global center of excellence for research, teaching and corporate engagement on questions of climate change and sustainability; http://www.smithschool.ox.ac.uk. Its program areas include Sustainable Finance as well as the Economics of Sustainability. A key collaboration involves the Oxford Martin School, which has promulgated the Oxford Martin Principles for Climate-Conscious Investment; https://www.oxfordmartin.ox.ac.uk/publications/view/2637. These Principles provide a framework for engagement between climate-conscious investors and companies across the global economy. Building upon the science of long-term climate change, they focus on how investments contribute to the global stock of cumulative carbon dioxide emissions, complementing other measures, such as carbon foot-printing, that focus on emission flows.

An SSEE report issued in 2015, co-authored and funded by Arabesque Asset Management, is especially relevant to this review of collaborative thought leadership on company valuation. It is entitled: *From the Stockholder to the Stakeholder: How Sustainability Can Drive Financial Outperformance.* Moreover, it includes bibliographic entries for more than 200 sources. The abstract for the Social Studies Research Network (SSRN) provides as follows:

Abstract:

In this enhanced meta-study we categorize more than 200 different sources. Within it, we find a remarkable correlation between diligent sustainability business practices and economic performance. The first part of the report explores this thesis from a strategic management perspective, with remarkable results: 88% of reviewed sources find that companies with robust sustainability practices demonstrate better operational performance, which ultimately translates into cashflows. The second part of the report builds on this, where 80% of the reviewed studies demonstrate that prudent sustainability practices have a positive influence on investment performance. This report ultimately demonstrates that responsibility and profitability are not incompatible, but in fact wholly complementary. When investors and asset owners replace the question "how much return?" with "how much sustainable return?," then they have evolved from a stockholder to a stakeholder.

Suggested Citation:

Clark, Gordon L. and Feiner, Andreas and Viehs, Michael, *From the Stockholder to the Stakeholder: How Sustainability Can Drive Financial Outperformance* (March 5, 2015). Available at SSRN: https://ssrn.com/abstract=2508281

23. Social and Human Capital Coalition

The Social and Human Capital Coalition was launched in April 2018, based on the conviction that the measurement and management of corporate performance must evolve to incorporate social and human capital; http://social-human-capital.org/sites/default/files/SHCC%20-20media%20release%20FINAL.pdf; see also main website: http://social-human-capital.org. Alongside financial and environmental metrics, there is growing momentum for the development of a credible, comparable approach to such valuation. This will help companies to better manage their social risks and integrate social impact into their core business strategies. Nonetheless, the Coalition observes that there is currently little consensus on how companies should measure and value intangible assets such as social and human capital. As a result, companies often under-value and under-invest in them. A key aim is to promulgate a "Social and Human Capital Protocol" that would clarify the objectives and mechanics of valuation. An initial task, given these ambiguities, was to draft a "Social and Human Capital Charter" to frame the Protocol and guide companies and stakeholders; http://social-human-capital.org/introducing-social-human-capital- coalition/social-human-capital-charter. The articles of the Charter address: Sustainable Development; Human Rights; Transparency; Trade-offs; Monetary Valuation; Role of governments, society and communities; Continuous learning and adaptive management. As the Coalition explains:

> The purpose of this Charter is to highlight key ethical issues that should be considered by users of the Protocol, to help ensure that the application by business of the concept of social capital through the Protocol leads to the protection, maintenance and, where possible, enhancement, of people's rights, skills, experience, knowledge, and well-being in addition to societies' shared values, norms and institutions.

A draft of the Social and Human Capital Protocol was developed by the World Business Council for Sustainable Development (WBCSD), along with an expert Advisory Group of over 20 companies; http://docs.wbcsd.org/2017/04/Social_Capital_Protocol_Guide.pdf. Peter Bakker, President and CEO of the WBCSD, serves as the Coalition's Chair in 2018-2019 (see WBCSD entry below). The Protocol aims to help business measure and value intangible assets such as skills, competencies, consumer trust and the importance of establishing closer relationships with regulators and local communities.

To support an extensive stakeholder consultation, a collection of documents, research reports and case studies was made available on the website. Of note is "Social Capital – An Eclectic Literature Survey," commissioned by the Tata Sustainability Group; https://docs.wbcsd.org/2018/09/Social_Capital-An_eclectic_literature_survey.pdf. Following an expert assessment, a new version of the Social & Human Capital Protocol was launched in February 2019; https://docs.wbcsd.org/2019/02/Social_and_Human_Capital_Protocol.pdf.

It presents sections on Frame, Scope, Measure and Value, and Apply, as well as an extensive list of references. Overall, this new Protocol offers a global focal point for advancing a range of issues related to the measurement of social and human capital.

24. Sustainability Accounting Standards Board

The Sustainability Accounting Standards Board (SASB), established in 2011, is an independent private-sector standards setting organization based in San Francisco, California: https://www.sasb.org/. It is dedicated to enhancing the efficiency of capital markets by fostering high-quality disclosure of material sustainability information that meets investor needs. The SASB develops and maintains sustainability accounting standards – for 79 industries in 11 sectors – to help public corporations make such disclosures in a cost-effective and decision-useful format. A "materiality map" is organized under five broad sustainability dimensions: environment, social capital, human capital, business model and innovation, leadership and governance; https://www.sasb.org/standards-overview/materiality-map/. The SASB upholds a transparent, inclusive and rigorous standard-setting process. As its Navigator research platform explains; https://navigator.sasb.org/:

> In a marketplace saturated with sustainability information, it's hard to know what to trust and how to decipher what really matters—which factors will drive performance and impact the bottom line. SASB sharpens the focus. With SASB's industry-specific standards, access the research that explains which ESG factors are most likely to create — or destroy — value. And take it a step further by comparing the quality of corporate disclosures on those factors.

25. Sustainable Stock Exchanges

Sustainable Stock Exchanges (SSE) is an initiative of UNCTAD, UN Global Compact, UN Environment Programme Finance Initiative and the UN-supported Principles for Responsible Investment; http://www.sseinitiative.org/. Launched in 2009 by the United Nations Secretary-General, it serves as a peer-to-peer learning platform for exploring how exchanges (in collaboration with policymakers, regulators, investors and companies) can promote responsible investment for sustainable development. It encourages partnerships and the adoption of best practices. A 2017 report, *How Stock Exchanges Can Grow Green Finance: A Voluntary Action Plan*, has a special focus on the implementation and financing of the SDGs; http://www.sseinitiative.org/wp-content/uploads/2017/11/SSE-Green-Finance-Guidance-.pdf. It examines issues of relevance to stock exchanges, such as government commitments to "design policies, including capital market regulations where appropriate, that promote incentives along the investment chain that are aligned with long-term performance and sustainability indicators, and that reduce excess volatility." The report also cites several evidence-based studies that evaluate quality of earnings, quality of financial reporting and continuity of risk-adjusted returns by companies that adopt ESG or sustainability measures. These findings indicate that ESG measures more broadly could enhance the quality of earnings and financial reporting, and improve the fundamental valuation of debt and equities. There are currently 88 SSE partner exchanges located around the world; http://www.sseinitiative.org/sse-partner-exchanges/list-of-partner-exchanges/.

26. Task Force on Climate-related Financial Disclosures

The Financial Stability Board (FSB) is an international body that monitors the global financial system. In making policy recommendations, it coordinates with national financial authorities and international standard-setting bodies. In December 2015, the FSB established an industry-led disclosure task force on climate-related financial risks under the chairmanship of Michael R. Bloomberg; https://www.fsb-tcfd.org/. This Task Force on Climate-related Financial Disclosures (TCFD) was charged with developing voluntary, consistent climate-related financial risk disclosures for use by companies in providing information to lenders, insurers, investors and other stakeholders. Its members, drawn from a wide range of industries and countries, undertook extensive public engagement and consultation. The TCFD developed a set of recommendations on climate-related financial disclosures that are applicable to organizations across sectors and jurisdictions. These recommendations are structured around four thematic areas:

- Governance: The organization's governance around climate-related risks and opportunities.
- Strategy: The actual and potential impacts of climate-related risks and opportunities on the organization's businesses, strategy, and financial planning.
- Risk Management: The processes used by the organization to identify, assess and manage climate-related risks.
- Metrics and Targets: The metrics and targets used to assess and manage relevant climate-related risks and opportunities.

The TCFD final report was published in June 2017; https://www.fsb-tcfd.org/wp-content/uploads/2017/06/FINAL-2017-TCFD-Report-11052018.pdf. A recent status report confirms that climate-disclosure is becoming mainstream, and that these practical recommendations are useful in decision-making. Over 500 companies are now supporters of the TCFD, including the world's largest banks, asset managers and pension funds, responsible for assets of nearly $100 trillion; https://www.fsb.org/2018/09/task-force-report-shows-momentum-building-for-climate-related-financial-disclosures/. The TCFD has also established a TCFD Knowledge Hub in collaboration with the Carbon Disclosure Standards Board; https://www.tcfdhub.org/. This platform, designed to help organizations implement the TCFD recommendations, provides over 400 relevant resources. These include existing legislation and regulations, frameworks, standards, guidance, research papers, case studies, tools and webinars.

27. UK Financial Reporting Council

In the field of corporate law and governance, important steps have been taken under the auspices of the UK Financial Reporting Council (FRC). These developments must be understood in the context of Section 172 of the UK Companies Act of 2006, regarding the promotion of company success; https://www.legislation.gov.uk/ukpga/2006/46/section/172. The Section imposes on a director the duty to "act in a way he considers, in good faith, would be most likely to promote the success of the company for the benefit of its members as a whole." In so doing, he is to have regard (among other matters) to:

(a) the likely consequences of any decision in the long term,
(b) the interests of the company's employees,
(c) the need to foster the company's business relationships with suppliers, customers and others,
(d) the impact of the company's operations on the community and the environment,
(e) the desirability of the company maintaining a reputation for high standards of business conduct, and
(f) the need to act fairly as between members of the company.

In July of 2018, following a period of consultation, the FRC released a set of three documents. When viewed as a complement to this Company Valuation Literature Review, it holds numerous insights of relevance to sustainable value creation. Ongoing analysis and engagement around these documents, notably on the part of professional services firms and industry associations, will contribute to the methodologies and metrics for company valuation.
In July 2018, the FRC released a new UK Corporate Governance Code, the revised Guidance on Board Effectiveness, and the revised Guidance on the Strategic Report:
https://www.frc.org.uk/getattachment/88bd8c45-50ea-4841-95b0-d2f4f48069a2/2018-UK-Corporate-Governance-Code-FINAL.PDF
https://www.frc.org.uk/getattachment/61232f60-a338-471b-ba5a-bfed25219147/2018-Guidance-on-Board-Effectiveness-FINAL.PDF
https://www.frc.org.uk/getattachment/fb05dd7b-c76c-424e-9daf-4293c9fa2d6a/Guidance-on-the-Strategic-Report-31-7-18.pdf

Within the FRC Guidance on Board Effectiveness, the section on board leadership and company purpose includes the following paragraph:

> A sound understanding at board level of how value is created over time is key in steering strategies and business models towards a sustainable future. This is not limited to value that is found in the financial statements. An understanding of how intangible sources of value are developed, managed and sustained – for example a highly trained workforce, intellectual property or brand recognition – is increasingly relevant to an understanding of the company's performance and the impact of its activity. These are important considerations for boards when setting corporate strategy.

Within the FRC Guidance on the Strategic Report, the growing importance of non-financial reporting is also recognized. The FRC notes that the purpose of the strategic report is to provide information to help shareholders assess how directors have performed their duty to promote the success of the company. The integration of non-financial information into the company's strategic report is deemed to be a key part of telling its story. As the accompanying press release explains; https://www.frc.org.uk/news/july-2018/revised-guidance-on-the-strategic-report:

> The revised guidance places a greater focus on the directors' duty to promote the success of the company under section 172 of the Companies Act 2006. This is complemented by new legislation that introduces a specific reporting requirement on how directors have had regard to broader matters when performing their duty, including considering the interests of employees, suppliers, customers and other stakeholders as well as impacts on the community and environment.

Overall, this new FRC guidance on the strategic report places greater emphasis on how a company generates and preserves value over the longer term. It also encourages companies to consider the sources of value that are not recognized on the balance sheet as part of its business model reporting.

28. United Nations Global Compact

The UN Global Compact (UNGC), established in 2000, is one of the world's largest voluntary corporate responsibility initiatives. The main purpose is to encourage companies to support a core set of values in areas of human rights, labor rights, environment and anti-corruption. Sustainable development has become a key focus, and the UNGC has compiled an extensive collection of resources and toolkits to facilitate business engagement with the SDGs; www.unglobalcompact.org. It has also launched a blueprint for business leadership on the SDGs that aims to inspire all companies – regardless of size, sector, or geography – to take action; http://blueprint.unglobalcompact.org/. A series of SDG Briefs helps companies identify suitable strategies. Under Goal 17 on partnerships, for example, there is guidance on how to galvanize private sector financial support for initiatives in developing countries. Additionally, the UNGC has established several new Action Platforms which convene businesses, local UNGC networks, experts, civil society, governments and UN partners to solve complex and interconnected issues, explore new market opportunities and innovate around the SDGs; https://www.unglobalcompact.org/sdgs/action-platforms. One of these Action Platforms focuses on Financial Innovation, with the goal of improving the risk/return profile of SDG investments to attract institutional investors.

29. United Nations Sustainable Development Agenda

As noted in the introduction to this document, the UN Sustainable Development Goals (SDGs) have catalyzed research and action in numerous areas that will impact the future of company valuation. A key document is *Transforming our World: The 2030 Agenda for Sustainable Development Agenda.* This is the title of the UN resolution, adopted in September 2015 and spanning until 2030, which sets forth the Sustainable Development Goals and targets; https://sustainabledevelopment.un.org/content/documents/21252030%20Agenda%20for%20Sustainable%20Development%20web.pdf. The UN work stream on financing for development -- dubbed the *Addis Ababa Action Agenda* -- is an integral part of the Sustainable Development Agenda. This establishes a vital foundation to support the implementation of the SDGs. It also

aims to provide a new global framework for financing sustainable development by aligning all financing flows and policies with economic, social and environmental priorities. As such, it is of particular relevance to this review;
https://sustainabledevelopment.un.org/content/documents/2051AAAA_Outcome.pdf.

Broadly, mobilization around the SDGs will result in collaborative initiatives and policy proposals of potential relevance to company valuation. These may be drawn from areas such as UN Engagement with the Private Sector; Measurement of Progress and Social Impact; Alignment of Private Finance with Development Programs. For example, in 2016 the UN Social Impact Fund was established at the UNDP's regional headquarters in Bangkok, Thailand; http://undp.socialimpact.fund/unsif-research-council/. An international research council is examining the alignment of private capital markets with the SDGs, including the development of metrics to measure impact investing. In September of 2018, the UNDP launched an initiative called "SDG Impact" in partnership with the Impact Management Project; https://www.undp.org/content/undp/en/home/news-centre/news/2018/UNDP_launches_SDG_Impact_to_help_unlock_investment_in_the_UN_Global_Goals.html; https://sdgimpact.undp.org/. This aims to spearhead a global unified effort to authenticate SDG-enabling investment:

SDG Impact will provide investors and businesses with much-needed country-level data and SDG investment roadmaps. The initiative spells out the need for investors and companies of all sizes to adapt and transform their core business strategies to deliver financial, social and environmental performance, and to use the SDGs as the basis for engaging in untapped markets, generating investments in developing countries and navigating risks and opportunities.

30. World Bank Group Human Capital Project

In August of 2018, the World Bank Group announced a new Human Capital Project to help countries prioritize human capital in a sustained way, recognizing that jobs and skilled workers are key to national progress in countries at all income levels;
https://www.worldbank.org/en/news/immersive-story/2018/08/03/investing-in-people-to-build-human-capital.

It noted:

> There are three main objectives: first, to build demand for more and better investments in people; second, to help countries strengthen their human capital strategies and investments for rapid improvements in outcomes; and third, to improve how we measure human capital. The new Human Capital Index, to be released at the World Bank's Annual Meetings in October, will support all three objectives and offer a crucial resource for both governments and citizens. It will help measure productivity-related human capital outcomes such as child survival, early hardwiring of children for success, student learning, and adult health.

World Bank Group President Jim Yong Kim provided further context in the July/August 2018 issue of *Foreign Affairs*; https://www.foreignaffairs.com/articles/2018-06-14/human-capital-gap. The article is entitled: "The Human Capital Gap: Getting Governments to Invest in People." Additionally, this priority was reinforced during the preparation of the World Bank's flagship publication -- *World Development Report: The Changing Nature of Work*; http://www.worldbank.org/en/publication/wdr2019. In 2018, the World Bank issued a report entitled *The Human Capital Project*, which also describes the purposes and methodology of the Human Capital Index; https://openknowledge.worldbank.org/bitstream/handle/10986/30498/33252.pdf?sequence=5&isAllowed=y. Moreover, during the Spring 2019 Meetings of the World Bank Group and International Monetary Fund, the theme of human capital featured in a number of sessions; http://www.worldbank.org/en/topic/jobsanddevelopment/brief/highlights-from-human-development-events.

It is worth noting that the idea of human capital is being considered in a variety of business and policy contexts, and such insights may help inform aspects of company valuation. For example, the World Economic Forum (WEF) promotes public-private cooperation by engaging political, business and other leaders of society to shape global, regional and industry agendas. It understands human capital as the ingenuity and creativity to solve current challenges and build a future that is more inclusive and human-centric. According to the WEF *Global Human Capital Report 2017*, how nations develop their human capital can be a more important determinant of their long-term success than virtually any other factor; http://www3.weforum.org/docs/WEF_Global_Human_Capital_Report_2017.pdf. The report also proposed a new benchmark for maximizing this potential: a Global Human Capital Index which ranks countries on how well they are developing their human capital. This could be used as a tool to assess progress within countries and identify opportunities for cross-country learning and exchange.

31. World Business Council for Sustainable Development

The World Business Council for Sustainable Development (WBCSD) is a group of international companies and business organizations that promotes policies and best practices for sustainable development; www.wbcsd.org. Headquartered in Geneva, the WBCSD was created in 1995 through a merger between the Business Council for Sustainable Development and the World Industry Council for the Environment. In partnership with the World Resources Institute (WRI), it developed the Greenhouse Gas (GHG) Protocol. The GHG Protocol establishes comprehensive global standardized frameworks to measure and manage greenhouse gas emissions from private and public sector operations, value chains and mitigation actions; https://ghgprotocol.org/. Today, the GHG protocol provides the world's most widely used greenhouse gas accounting standards.

The WBCSD's "Redefining Value" initiative is especially relevant to contemporary challenges in company valuation; https://www.wbcsd.org/Programs/Redefining- Value. The WBCSD describes the effort as follows:

> Redefining Value helps companies measure and manage risk, gain competitive advantage and seize new opportunities by understanding environmental, social and governance (ESG) information.
>
> We do this by building collaborations and developing tools, guidance, case studies, engagement and education opportunities to help companies incorporate ESG performance into mainstream business and finance systems.

> Our goal is to improve decision-making and external disclosure**,** eventually transforming the financial system to reward the most sustainable companies**.**

The Redefining Value initiative oversees programs related to external disclosure, business decision-making, and investor decision-making. Additionally, the WBCSD examines how business solutions related to the Redefining Value pathway may contribute to the SDGs.

Concluding Observations from the Caux Round Table

Reflections on Valuation

The valuation of firms, most unfortunately, is a small, secluded, corner of our modern global capitalism. So frequently is the value of a firm, a readily proffered proxy for its future prospects, taken from market prices -- either from the price of its shares or from the sale of a comparable entity. Rarely, however, is the value of a firm taken from its net asset value as shown on audited balance sheets.

Though valuation is often an arcane art left to professionals, price discovery is said to be the heart of capitalism. Price discovery pumps material information through markets, facilitating the closing of transactions between willing buyers and sellers. If price is so important to the flourishing of market transactions, and firms or equity interests in them are bought and sold through such transactions, then no attempt should be overlooked to arrive at a sound estimate of what a company is worth.

Two considerations are important. First, prices convert inchoate demand for goods and services into the wealth of nations. As Adam Smith wrote, the gaining of meat, beer or bread by the consumer and of money by the butcher, the brewer or the baker occurs when a price for meat, beer or bread is acceptable to both seller and buyer. An off-kilter price does not lead to an exchange of values, with profit for the seller and satisfaction for the buyer. To promote business, finance, and commerce, we need to pay close attention to prices. If prices are too high, demand dies away; if they are too low, supply dries up. Prices serve as checks and balances keeping supply and demand in sync with one another. We enhance wealth creation by getting prices right.

Second, prices "moralize" self-interest. If a market transaction happens voluntarily through the operation of free will, it is because the values of a seller and the values of a buyer coincide in finding a price acceptable to each. At that price, mutuality occurs. Morality arises as mutual agreement comes about. Self-interest is transcended and becomes something more communal. Two independent interests with their various value components merge into a social fact. Two independent wills merge into a common good.

To find the price which will permit the morality of markets to come about, we need to unpack all the components of value which the parties use to set their preferences. As economists would say, to set their utility curves for a good, a service, money, or whatever else is embraced by the contract of exchange. Reference to Abraham Maslow's hierarchy of needs may be apt in understanding how an individual's utility curve is shaped, how he or she acts on a perceived preference, satisfaction or disdain. This may reflect some combination of an individual's so-called first order needs for basic sustenance, shelter and security and the higher order needs for self-expression and meaning. The latter are found in psycho-social merit goods such as status and esteem; belongingness, love, compassion, generosity, and empathy; appreciation of art; creative accomplishment, and even concern for legacy after death. Intangible considerations -- over and above food and shelter, money and rank -- shape our willingness to pay more or less for a good or service. In essence, many values contribute to a market value.

The same holds true for firms. The price of a firm, its value expressed in money, reflects many factors, both tangible and intangible.

Market prices for firms do not always provide reliable information as to their long-term value. Market prices, as we learned from the collapse of credit markets in 2008, are only nominal. A market price at one moment may not be there at another point in time. The price could rise or fall depending on the value assessments brought to the market by buyers and sellers.

The implication of this, for those who seek longer-term stability in asset prices, is to intellectually put market prices in perspective and supplement them with a different basis for analysis or worth.

Pricing and Sustainability

Sustainability can be impeded or advanced by pricing. If sustainable firms have more value than un-sustainable ones due to lower long-term risk profiles, then they merit investment from those seeking reliable returns. Conversely, un-sustainable firms do not deserve investment due to their higher risk of future loss and failure.

The challenge for any present-market pricing of firm value is whether or not nominal market prices are correct indicators of future performance and long-term sustainability. For such pricing to more reliably represent the long-term prospects of a firm, those factors which contribute to or detract from sustainability must be included in the calculation of price.

How is this to be done? This report draws attention to emerging paradigms of company valuation for long-term social and environmental sustainability.

Enterprise risk gravitates towards how well or poorly a firm engages with its many stakeholders – customers, employees, providers of financial capital whether through equity or debt, suppliers, regulators, civil society opinion-leaders and norm-setters. Seeking a reliable present value for a firm should include an effort to estimate the consequences, over time, of the firm’s ability to benefit from its engagement with stakeholders.

As shown in Part One (Sec. 1) of this literature review, current conventions on the process of setting a valuation for a firm do not explicitly or formally include assessments of a firm’s engagement with all its stakeholders.

The same conclusion is reached inversely in Part One (Sec. 2), which outlines emerging metrics for firm valuation. The emerging metrics are seeking out, groping in the faint light of an early intellectual dawn perhaps, for a new methodology of valuation. The search for something new and better reveals dissatisfaction with the status quo in valuation methodology, exposing its limitations.

Finally, the thought leadership initiatives presented in Part Two of the report offer a range of potential approaches to the development of a viable and comprehensive valuation methodology.

The report establishes a baseline of current practice in valuation and points the way with reason and insight towards a new sophistication in assessment of firm prospects. Going forward, this is quite in keeping with the needs of a sustainable global capitalism.